## K983136 510(K) SUMMARY OF SAFETY AND EFFECTIVENESS

**SPONSOR OF THIS 510(K):** DePuy, Inc.

P.O. Box 988

Warsaw, Indiana 46581-0988

510(K) CONTACT: Sally Foust

DePuy Orthopaedics, Inc.

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**TRADE NAME:** DePuy Luster Stem

**COMMON NAME:** Hip Prosthesis

CLASSIFICATION: Class II per 888.3350, Hip joint metal/polymer semi-

constrained cemented prosthesis

**DEVICE CODE:** JDI

**EQUIVALENT DEVICES:** DePuy Cemented Hip Prosthesis (Endurance)(K942370)

CPT Hip Prosthesis (K960658)

Exeter Total Hip System (K974054, K980843)

## **DEVICE DESCRIPTION AND INTENDED USE:**

The DePuy Luster Stem is a polished, distally tapered femoral stem with a proximal anterior/posterior flange, a medial 30° collar, and an oval driver hole in the lateral proximal shoulder. The DePuy Luster Stem is available in five sizes (1, 2, 3, 4, and 5) each with two offset options, standard and high, and is manufactured from forged cobalt chrome molybdenum alloy. The DePuy Luster Stem is indicated for cemented use as the femoral component in total hip arthroplasty for replacing the hip joint of a patient whose hip joint has been damaged by degenerative joint disease, fracture, or the failure of a previous arthroplasty.

## BASIS OF SUBSTANTIAL EQUIVALENCE:

The Luster Stem is identical in design, material and intended use to the FDA cleared Endurance (K942370) femoral stem. Both stems are distally tapered femoral stems with a proximal anterior/posterior flange, a medial 30° collar, and an oval driver hole in the lateral proximal shoulder. Both stems have a 12/14mm self-locking male taper at the neck to allow for the use of interchangeable modular metal or ceramic femoral heads. Both stems are available in five sizes (1, 2, 3, 4, and 5) each with a standard and high offset option. Both stems accept a PMMA centralizer at the distal tip and may be used with a cement restrictor. Both stems are manufactured from forged cobalt chrome molybdenum alloy and are intended for cemented use as the femoral component in total hip arthroplasty for replacing the hip joint of patients whose hip joint has been damaged by degenerative joint disease, fracture, or the failure of a previous arthroplasty. The only difference

between the Luster stem and the FDA cleared Endurance stem is that the entire surface finish of the Luster stem is polished while the Endurance stem has a matte finish on the lateral and distal stem, and is grit blasted under the proximal flange.

The Luster stem is similar in material, design, and intended use to the FDA cleared CPT Hip Prosthesis in that the both stems are manufactured from cobalt chrome, are polished, and are intended for cemented use with the use of femoral canal centering devices (i.e., centralizers). The Luster stem is similar in design and intended use to the FDA cleared Exeter Total Hip System in that both stems are polished and are intended for cemented use with the use of femoral canal centering devices.

Based on similarities of design, materials and intended use, DePuy believes that the Luster Stem 18 substantially equivalent to the FDA cleared Endurance, CPT, and Exeter Hip Systems.

The following table summarizes the similarities:

	LUSTER	ENURANCE	CPT	EXETER
		(K942370)	(K960658)	(K974054,
				K980843)
Material	Cobalt-Chrome	Cobalt-Chrome	Cobalt-Chrome	316L Stainless
				Steel
Use	Cemented	Cemented	Cemented	Cemented
Design	Medial 30°	Medial 30°	Collarless,	Collarless,
	Collar,	Collar.	Slim Profile,	Slim Profile,
	Proximal	Proximal		
	Flange,	Flange,		
	Two Tapers,	Two Tapers,	Two Tapers,	Two Tapers,
	Polished Finish	Matte Finish	Polished Finish	Polished Finish
Modular	Yes	Yes	Yes	Yes
Heads				
EndCaps/				
Centralizers/	Yes	Yes	Yes	Yes
Cement			i	
Restrictors			_	



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Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

Ms. Sally Foust Senior Regulatory Submissions Associate DePuy Orthopaedics, Inc. P.O. Box 988 700 Orthopaedic Drive Warsaw, Indiana 46581-0988

Re: K983136

Trade Name: DePuy Luster Stem

Regulatory Class: II Product Code: JDI

Dated: September 4, 1998 Received: September 8, 1998

Dear Ms. Foust:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the <a href="Code of">Code of</a> Federal Regulations, Title 21, Parts 800 to 895. substantially equivalent determination assumes compliance with the current Good Manufacturing Practice requirement, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic (QS) inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "http://www.fda.gov/cdrh/dsmamain.html".

Sincerely yours,

Celia M. Witten, Ph.D., M.D.

Director

Division of General and Restorative Devices Office of Device Evaluation Center for Devices and Radiological Health

Enclosure

510(k) Number (if known) <u>k163136</u>	6				
Device Name: <u>DePuy Luster Stem</u>					
Indications for Use:					
The DePuy Luster Stem is indicated for cemented use as the femoral component in total hip arthroplasty for replacing the hip joint of a patient whose hip joint has been damaged by degenerative joint disease, fracture, or the failure of a previous arthroplasty.					
Concurrence of CDRH, Office of Device Evaluation					
Prescription Use X (Per 21 CFR 801.109)	OR	Over-The-Counter Use			
Div		Restorative Devices			
510	0(k) Number	k 983136			